

AP20 Rec'd PCT/PTO 13 APR 2006

SEQUENCE LISTINGCDRs For FR1-H7 Amino Acid Sequences

VH (human heavy chain subclass I)

CDR1 SEQ ID NO:1 DYMH
CDR2 SEQ ID NO:2 LVDPEDGETIYAEKFQG
CDR3 SEQ ID NO:3 DDYMDV

VL (human kappa light chain subgroup III)

CDR1 SEQ ID NO:4 RASQSVSGSALA
CDR2 SEQ ID NO:5 DASSRAT
CDR3 SEQ ID NO:6 QQYGSSPLT

Variable Region of FR1-H7 Heavy Chain

Amino Acid Sequence

SEQ ID NO:7

MAEVQLVQSGAEVKKPGASVKVSCKVSGYTFTDYMHVWVQQAPGKGLEWMGLVDPEDGET
IYAEKFQGRVTITADTSTDTAYMELSSLRSEDTAVYYCARDYMDVWGKGLVTVSSAST
KGP

Variable Region of FR1-H7 Light Chain

Amino Acid Sequence

SEQ ID NO:8

LETTLTQSPDTLSLSPGEGATLSCRASQSVSGSALAWYQQKPGQAPRLLIYDASSRATGV
PDRFSGSGSGADFLTI SRLEPEDFAVYSCQQYGSSPLTFGPGTKVDVKRTVAAPSVFIF
PPSDEQLKSGTASVCLLNNFYPREAKVQWKVD

CDRs For FR1-A1 Amino Acid Sequences

VH (human heavy chain subclass I)

CDR1 SEQ ID NO:9 GYMH
CDR2 SEQ ID NO:10 RIIPILGIANAYAKFQG
CDR3 SEQ ID NO:11 GGDLGGMDV

VL (human kappa light chain subgroup III)

CDR1 SEQ ID NO:12 RSSQSLRHSNGYNYLD
CDR2 SEQ ID NO:13 LASNRAS
CDR3 SEQ ID NO:14 MQALQIPPT

Variable Region of FR1-A1 Heavy Chain

Amino Acid Sequences

SEQ ID NO:15.

MAQVQLVQSGAEVKKPGSSVKVSKASGQTFTGYMHVWRQAPGQGLEWMGRIIPILGIA
NYAQKFQGRVTITADKSTSTAYMELSSLRSEDTAVYYCARGGDLGGMDVWGQG

Variable Region of FR1-A1 Light Chain

Amino Acid Sequences

SEQ ID NO:16

LEIVLTQSPLSLPVTPGEPASISCRSSQSLRHSNGYNYLDWYLQKPGQSPQLLIYLASNR
 ASGVDPDRFSGSGSGTDFTLKISRVEAEDVGVYYCMQALQIPPTFGPGTKVDIKRTVAA

CDRs For FR1-4H Amino Acid Sequences

Variable Heavy Chain

CDR1 SEQ ID NO:17 SYYWS
 CDR2 SEQ ID NO:18 YIYYSGSTNYPNPSLKS
 CDR3 SEQ ID NO:19 EYYYDSSGYFYAFDI

Variable Light Chain]

CDR1 SEQ ID NO:20 SGSSSNIGSNYVY
 CDR2 SEQ ID NO:21 RNNQRPS
 CDR3 SEQ ID NO:22 AAWDDSLSGWV

Variable Region Heavy Chain FR1-4H

Amino Acid Sequences

SEQ ID NO:23

QVQLVEFGPGLVKPSETLSLTCTVSGGSISSYYWSWIRQPPGKGLEWIGY	50
IYYSGSTNYPNPSLKS RVAISVDTSKNQFSLKLSSVTAADTAVYYCAREYY	100
YDSSGYFYAFDIWGQGTTVTVSS	124

Variable Region Light Chain

Amino Acid Sequence

SEQ ID NO:24

LPVLTQPPSASGTPGQRVSISSGSSSNIGSNYVYQQLPGTAPKLLIF	50
RNNQRPSGVPDRFSGSKSGTSASLAISGLRSEADYYCAAWDDSLSGWV	100
FGGGTKLTVLG	111

CDRs For FR1-H7 Nucleic Acid Sequences

VH (human heavy chain subclass I)

CDR1 SEQ ID NO:25 GACTACTACATGCAC
 CDR2 SEQ ID NO:26 CTTGTTGATCCTGAAGATGGTGAAACAATCTACGCAGA
 GAAGTTCCAGGGC
 CDR3 SEQ ID NO:27 GATGACTACATGGACGTC

VL (human kappa light chain subgroup III)

CDR1 SEQ ID NO:28 AGGGCCAGTCAGAGTGTTAGCGGCAGTGCGTTGGCC
 CDR2 SEQ ID NO:29 GATGCATCCAGTAGGGCCACT
 CDR3 SEQ ID NO:30 CAGCAATATGGTAGCTCACCTCTCACT

Variable Region of FR1-H7 Heavy Chain DNA Sequence

SEQ ID NO:31

ATGGCCGAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTGAAGAAGCCTGGGGCCTCAGTG
AAGGTTTCCTGCAAGGTTTCTGGATACACCTTCACCGACTACTACATGCACTGGGTGCAA
CAGGCCCCCTGGAAAAGGGCTTGAGTGGATGGGACTTGTTGATCCTGAAGATGGTGAAACA
ATCTACGCAGAGAAGTTCCAGGGCAGAGTCACCATAACCGCGGACACGTCTACAGACACA
GCCTACATGGAGCTGAGCAGCCTGAGATCTGAGGACACGGCCGTGTATTACTGTGCGAGA
GATGACTACATGGACGTCTGGGGCAAAGGCACCCTGGTCACCGTCTCAAGCGCCTCCACC
AAGGGCCCA

Variable Region of FR1-H7 Light Chain DNA Sequence

SEQ ID NO:32

CTTGAAACGACACTCACGCAGTCTCCAGACACCCTGTCTTTGTCTCCAGGAGAAGGAGCC
ACCCTCTCCTGTAGGGCCAGTCAGAGTGTTAGCGGCAGTGCGTTGGCCTGGTACCAGCAG
AAACCTGGCCAGGCTCCCAGACTCCTCATCTATGATGCATCCAGTAGGGCCACTGGCGTC
CCAGACAGGTTTCAGTGGCAGTGGGTCTGGGGCAGACTTCAGTCTCACCATCAGCAGACTG
GAGCCTGAAGATTTTGCAGTGTATTCTGTTCAGCAATATGGTAGCTCACCTCTCACTTTC
GGCCCTGGGACCAAAGTGGATGTCAAACGAAGTGTGGCTGCACCATCTGTCTTCATCTTC
CCGCCATCTGATGAGCAGTTGAAATCTGGAAGTGCCTCTGTTGTGTGCCTGCTGAATAAC
TTCTATCCCAGAGAGGCCAAAGTACAGTGAAGGTGGATT

CDRs For FR1-A1 Nucleic Acid Sequences

VH (human heavy chain subclass I)

CDR1 SEQ ID NO:33 GGCTACTATATGCAC

CDR2 SEQ ID NO:34 AGGATCATCCCTATCCTTGGTATAGCAAAC

TACGCACAGAAGTTCCAGGGC

CDR3 SEQ ID NO:35 GGAGGAGATCTGGGCGGTATGGACGTC

VL (human kappa light chain subgroup III)

CDR1 SEQ ID NO:36 AGGTCTAGTCAGAGCCTCCGGCATAGTAAT

GGATACAACTATTTGGAT

CDR2 SEQ ID NO:37 TTGGCTTCTAATCGGGCCTCC

CDR3 SEQ ID NO:38 ATGCAAGCTCTACAAATTCCTCCGACT

Variable Region of FR1-A1 Heavy Chain

DNA Sequence

SEQ ID NO:39

ATGGCCCAGGTCCAGCTGGTGCAGTCTGGGGCTGAGGTGAAGAAGCCTGGGTCTCAGGTG
AAGGTCTCCTGCAAGGCTTCTGGATCGACCTTCACCGGCTACTATATGCACTGGGTGCGA
CAGGCCCCCTGGACAAGGGCTTGAGTGGATGGGAAGGATCATCCCTATCCTTGGTATAGCA
AACTACGCACAGAAGTTCCAGGGCAGAGTCACGATTACCGCGGACAAATCCACGAGCACA
GCCTACATGGAGCTGAGCAGCCTGAGATCTGAGGACACGGCCGTGTACTACTGTGCGAGA
GGAGGAGATCTGGGCGGTATGGACGTCTGGGGCCAAGGGA

Variable Region of FR1-A1 Light Chain

DNA Sequences

SEQ ID NO:40

CTTGAAATTGTGCTGACTCAGTCTCCACTCTCCCTGCCCGTCACCCCTGGAGAGCCGGCC
 TCCATCTCCTGCAGGTCTAGTCAGAGCCTCCGGCATAGTAATGGATACAACTATTTGGAT
 TGGTACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTTGGCTTCTAATCGG
 GCCTCCGGGGTCCCTGACAGGTTCA GTGGCAGTGGATCAGGCACAGATTTTACACTGAAA
 ATCAGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGCATGCAAGCTCTACAAATT
 CCTCCGACTTTCGGCCCTGGGACCAAAGTGGATATCAAACGAACTGTGGCTGCA

CDRs For FR1-4H Nucleic Acid Sequences

Variable Heavy Chain

CDR1 **SEQ ID NO:41** AGTTACTACTGGAGC

CDR2 **SEQ ID NO:42**

TATATCTATTACAGTGGGAGCACCAACTACAACCCCTCCCTCAAGAGT

CDR3 **SEQ ID NO:43**

GAGTATTACTATGATAGTAGTGGTTATTACTTTTATGCTTTTGATATC

Variable Light Chain]

CDR1 **SEQ ID NO:44** TCTGGAAGCAGCTCCAACATCGGAAGTAATTATGTATAC

CDR2 **SEQ ID NO:45** AGGAATAATCAGCGGCCCTCA

CDR3 **SEQ ID NO:46** GCAGCATGGGATGACAGCCTGAGTGGTTGGGTG

Variable Region Heavy Chain FR1-4H

DNA Sequences

SEQ ID NO:47

CAGGTGCAGCTGGTGGAGTTTGGCCCAGGACTGGTGAAGCCTTCGGAGAC	50
CCTGTCCCTCACCTGCACTGTCTCTGGTGGCTCCATCAGTAGTTACTACT	100
GGAGCTGGATCCGGCAGCCCCCAGGGAAGGGACTGGAGTGGATTGGGTAT	150
ATCTATTACAGTGGGAGCACCAACTACAACCCCTCCCTCAAGAGTCGAGT	200
CGCCATATCAGTAGACACGTCCAAGAACCAGTTCTCCCTGAAGCTGAGCT	250
CTGTGACCGCCGCGGACACGGCCGTGTATTACTGTGCGAGAGAGTATTAC	300
TATGATAGTAGTGGTTATTACTTTTATGCTTTTGATATCTGGGGCCAAGG	350
GACCACGGTCACCGTCTCAAGC	372

Variable Region Light Chain

DNA Sequence

SEQ ID NO:48

CTGCCTGTGCTGACTCAGCCCCCTCAGCGTCTGGGACCCCCGGGCAGAG	50
GGTCTCCATCTCTTGTCTGGAAGCAGCTCCAACATCGGAAGTAATTATG	100
TATACTGGTACCAGCAGCTCCCAGGAACGGCCCCCAAACCTCCTCATCTTT	150
AGGAATAATCAGCGGCCCTCAGGGGTCCCTGACCGATTCTCTGGCTCCAA	200
GTCTGGCACTTCAGCCTCCCTGGCCATCAGTGGGCTCCGGTCCGAGGATG	250
AGGCTGATTATTACTGTGCAGCATGGGATGACAGCCTGAGTGGTTGGGTG	300
TTCGGCGGAGGGACCAAGCTGACCGTCCTAGGT	333